

ABSTRACT

A schema-based inbox service that provides Internet access to per-user inbox data, (e.g., name, address, telephone numbers and e-mail addresses), wherein access to the inbox data is based on each user's identity. The inbox service includes a schema that defines rules and a structure for each user's data, and also includes methods that provide access to the data in a defined way. The inbox schema thus corresponds to a logical document containing the data for each user. The user manipulates (e.g., reads or writes) data in the logical document by data access requests through defined methods. In one implementation, the inbox schemas are arranged as XML documents, and the services provide methods that control access to the data based on the requesting user's identification, defined role and scope for that role. In this way, data can be accessed by its owner, and shared to an extent determined by the owner. The structure of the data is defined from the perspective of the data, not from that of an application program or a device, whereby appropriate programs can communicate with the inbox service to access the data, with existing knowledge of the schema-defined format, regardless of the device or application program in use. Extensibility is defined into the schema.